



EN

Gravity-discharge Toilet
Operation manual



4300 series



4400 series

Dometic®
4300/4400 Series
Toilets

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EN

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1 Notes on using the manual



Caution!

Safety Instruction: Failure to observe this instruction can cause material damage and impair the function of the device.



Note

Supplementary information for operating the device.

fig. 1 A, page 2 : This refers to an element in an illustration. In this example, item A in figure 1 on page 2.

2 General safety instructions

The manufacturer will not be held liable for claims for damage resulting from the following:

- Faulty assembly or connection
- Damage to the unit from mechanical influences, misuse or abuse
- Alterations to the unit without express written permission from the manufacturer
- Use for purposes other than those described in the operating manual

2.1 Warning – recreation vehicle applications

The following statement must be read and understood before installing, servicing and/or operating this product on a recreation vehicle. Modification of this product may result in property damage.

Dometic recommends that a qualified RV technician or electrician install or service this product with regard to all applicable codes and regulations. Equipment damage, personal injury or death could result from improper installation. DOMETIC ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR DAMAGE TO EQUIPMENT, OR PERSONAL INJURY OR DEATH THAT MAY RESULT FROM IMPROPER INSTALLATION, SERVICE OR OPERATION OF THIS PRODUCT.

2.2 Warnings – marine applications

The following statements must be read and understood before installing, servicing and/or operating this product on a boat. Modification of this product may result in property damage.

Dometic recommends that a qualified marine technician or electrician install or service this product. Equipment damage, injury to personnel or death could result from improper installation. DOMETIC ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR DAMAGE TO EQUIPMENT, OR PERSONAL INJURY OR DEATH THAT MAY RESULT FROM IMPROPER INSTALLATION, SERVICE OR OPERATION OF THIS PRODUCT.

**Caution! Hazard of Flooding**

If toilet is connected to ANY through-the-hull fittings, ALWAYS close seacock when toilet is not in use (even if boat is unattended for a brief period). All passengers MUST be instructed on how to close valves when the toilet is not in use. Failure to do so can result in flooding which can cause loss of property and life.

**Caution! Hazard of Flooding**

Before beginning any work on this product, be sure that all electrical power to the unit has been turned off and that seacock are in the CLOSED or OFF position. Failure to do so can result in flooding which can cause loss of property and life.

2.3 Warnings – all applications

**Caution! Hazard of Flooding**

If the toilet uses fresh water for flushing and is connected directly or indirectly to a municipal water system at ANY time, water connections MUST be disconnected if the vehicle is unattended (even if vehicle is unattended for a brief period). Failure to do so can result in flooding which can cause loss of property and life.

**Caution!**

Overfilling the holding tank can create serious damage to the sanitation system, such as rupturing the holding tank and releasing tank contents. To prevent this possibility, Dometic recommends using the “full” tank shut-down relay in the toilet’s electronic control module. The “full” signal from the holding tank can be generated by an optional Dometic DTM01C tank monitor or DTM04 four-level tank monitor system.

3 Intended use

Dometic 4300 and 4400 series gravity-discharge toilets provides an electric-flush toilet that flushes waste in to a holding tank or other effluent storage/disposal system. Operated by a wall-mounted flush switch or electronic flush handle, the toilet allows the user to add water to the bowl (before using or flushing) and to flush the toilet by pushing a button.

3.1 Benefits

Convenient electronic flush. Add water or flush with the touch of a button or electronic flush handle.

Residential-style wood seat with elongated opening. Provides premium quality and comfort.

Water-conserving flushes. User controls volume of water used per flush.

Manual flush override. Allows manual flushing in event of electrical power failure.

4 Specifications

4.1 Materials

Toilet: vitreous ceramic

Dometic switch panel (4300 series): polycarbonate resin

Flush handle (4400 series): plated brass

4.2 Minimum System Requirements

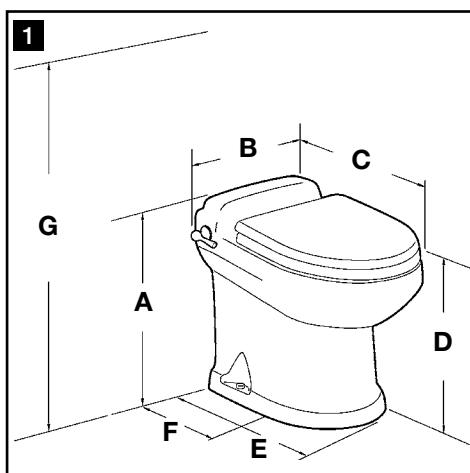
Electrical	Circuit breaker	2 amps/12 V DC
	Wiring	14 gauge stranded copper
Water Supply	Fitting	0.5 in. NPT
	Flow rate	4 gpm/15 lpm minimum at toilet
	Maximum flow pressure	40 PSI / 276 kPa
Discharge	Fitting	4-bolt floor (closet) flange. 3-in. (76 mm) ID ABS or PVC connection to holding tank

Specifications are subject to change without notice.

4.3 Dimensions (fig. 1) All dimensions may vary $\pm 3/8$ inch (10 mm)

Models with wall-mounted flush touchpad

Ref.	Dimension
A	19 in. / 483 mm
B	14.75 in. / 375 mm
C	21.5 in. / 546 mm *
D	17.75 in. / 451 mm - seat height
E	17.125 in. / 435 mm *
F	10 in. / 254 mm - centerline rough-in *
G	33.75 in. / 857 mm - seat lid up



Models with flush handle

Ref.	Dimension
A	19 in. / 483 mm
B	15.875 in. / 403 mm
C	21.5 in. / 546 mm *
D	17.75 in. / 451 mm - seat height
E	17.125 in. / 435 mm *
F	10 in. / 254 mm - centerline rough-in *
G	33.75 in. / 857 mm - seat lid up

* For toilet models with hand sprayer, add 0.25 in. / 6.3 mm to dimensions C, E, F to allow small space between toilet and wall.

5 Operation

5.1 Toilet system start-up

1. Turn off electrical power to toilet.
2. Open small round plastic cover on back ledge of toilet (fig. 3), insert screwdriver or other thin blunt-end rod, and push down on Manual Override Lever. This opens flush ball in toilet bowl.
3. Add holding tank deodorant or treatment directly into holding tank (follow deodorant directions).
4. Turn on electrical power to toilet. Flush ball will close.
5. Make sure water supply to toilet is turned on.

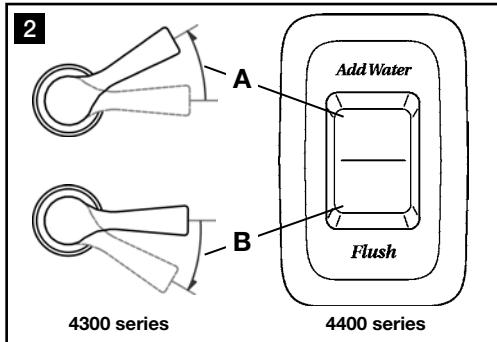
5.2 Normal toilet operation - Flush handle or wall switch

ADDING WATER TO TOILET BOWL

Raise flush handle or press "Add Water" switch (fig. 2 A) until desired water level is achieved. More water is usually added only when flushing solids.

FLUSHING TOILET

Press handle or "Flush" switch (fig. 2 B), then release when flush is complete.



Caution – Avoid Water Overflow

Do not "add water" to toilet bowl too long or toilet may overflow.



Caution – Do Not Flush Foreign Objects!

Flush only water, bodily wastes and rapid-dissolving toilet tissue. Do not flush wet wipes, sanitary napkins, condoms, diapers, paper cups, cotton swabs, food, hair or liquids such as oils or solvents as clogging or damage to the toilet or toilet system may occur.



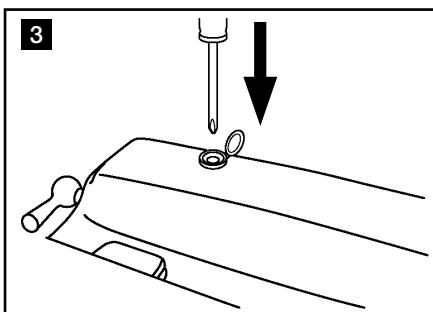
Note

Make sure all guests understand toilet operation before use.

5.3 Manual override operation

In the event of power failure and emergency flushing is required, or for cleaning purposes, the flush ball can be opened with the Manual Override feature.

1. Open small round plastic cover on back ledge of toilet (fig. 3), insert screwdriver or other thin blunt-end rod, and push down on Manual Override Lever. This opens flush ball.
2. Perform the desired function.
3. Flush ball will close only when electric power is restored to toilet.



**Caution**

Shut off the toilet system before servicing and do not leave the vehicle for extended periods of time with toilet system circuit breaker on.

6 Maintenance/winterizing/service

6.1 Cleaning the toilet

To maintain the toilet's original, lustrous appearance, use SeaLand® Toilet Bowl Cleaner or other non-abrasive bathroom and toilet bowl cleaners. Please follow label directions.

**Caution**

To avoid damaging internal seals, do not clean toilet with abrasive cleaners, caustic chemicals, or lubricants and cleaners that contain alcohols or petroleum distillates.

6.2 Routine maintenance

MONTHLY

1. Inspect toilet, plumbing and plumbing connections, wires and wire connections.
2. Check in-line water filters, if applicable.

YEARLY

Check water valve filter. Also check water valve filter if water flow into toilet becomes insufficient.

6.3 Winterizing

At the end of each season, the Dometic toilet should be winterized for storage by using potable water-safe antifreeze (if vehicle will be exposed to freezing temperatures).

**Note**

Use nontoxic antifreeze (propylene glycol) designated for potable water systems. (See vehicle owner's manual.)

**Caution**

Never use automotive-type antifreeze (ethylene glycol) in freshwater systems.

PRESSURIZED FRESH WATER SYSTEM

1. Drain potable water tank and empty holding tank.
2. Add freshwater antifreeze to potable water tank.
3. Flush potable water antifreeze and water mixture through toilet(s) and into entire system, including the waste holding tank. Turn off electric power to toilet.

Each installation is different, so required amounts of antifreeze may vary. User discretion is required to assure adequate protection.

6.4 Recommended spare parts

The following spare parts should be available at all times. Refer to parts list for item number to order. To order spare parts, refer to **Customer Service** section.

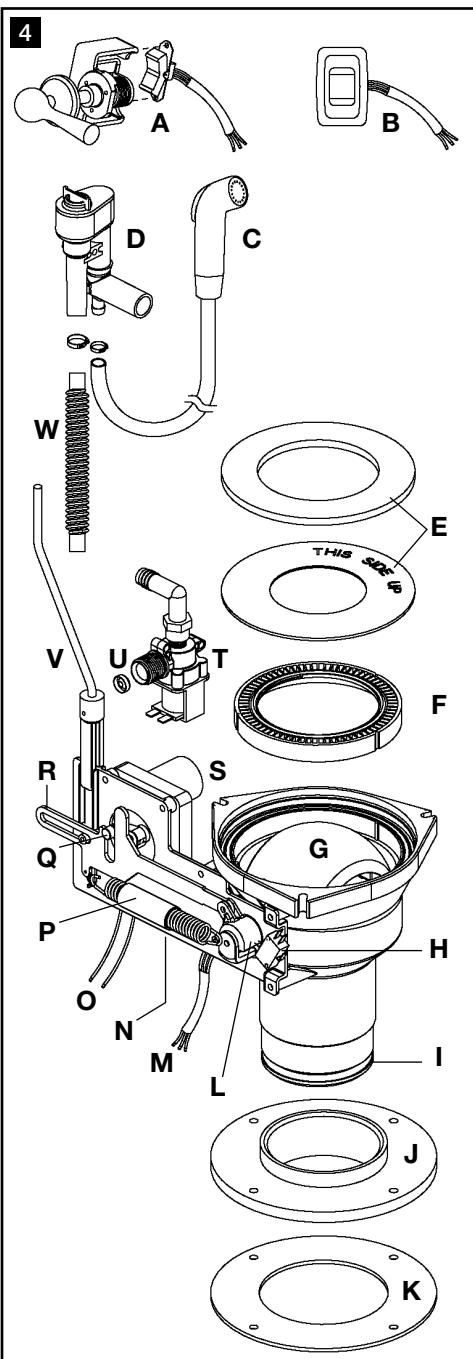
Description	Quantity
Flush ball seal kit	1
Flush ball	1
Electric water valve	1
Vacuum breaker assembly	1

6.5 Troubleshooting guide

Toilet base components (fig. 4)

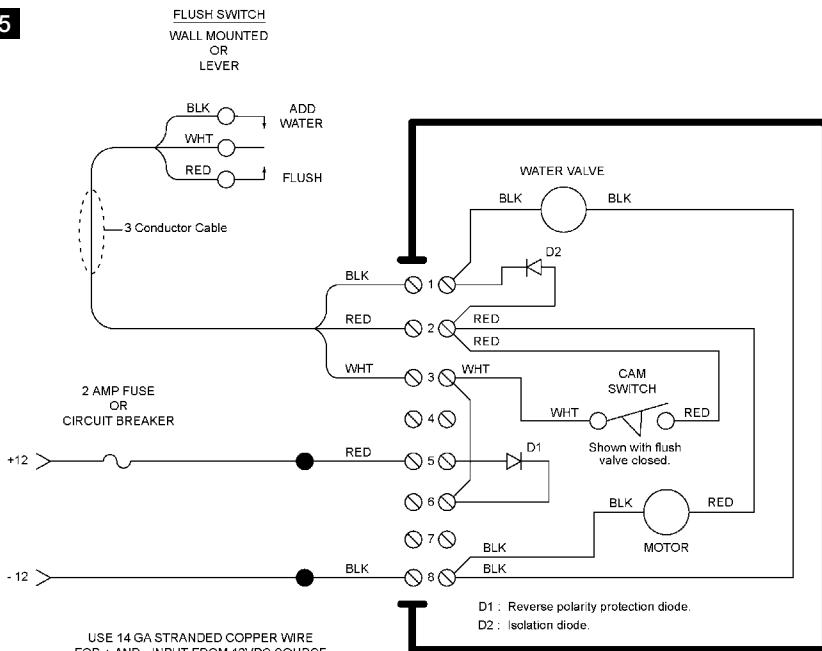
Ref.	Description
A	Flush handle (4300 series)
B	Flush switch (4400 series)
C	Hand sprayer (optional – not on all models)
D	Vacuum breaker
E	Bowl and flush ball seals
F	Seal plate
G	Flush ball
H	Cam switch (adjustable)
I	O-ring
J	Floor flange adapter
K	Flange adapter seal
L	Rotor shaft cam
M	Flush switch cable (4400 series)
N	Terminal block (opposite side)
O	Power wires
P	Flush spring
Q	Drive arm
R	Drive linkage
S	Flush ball drive motor
T	Water valve
U	Screen
V	Manual flush lever
W	Bowl water supply hose

Refer to complete parts list (packed separately) for additional information.



Wiring diagram

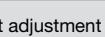
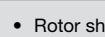
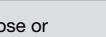
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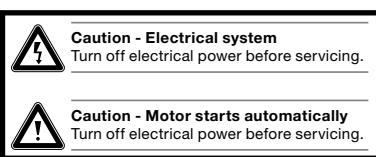


Troubleshooting information

Symptom	Possible Cause	Service Instruction
1. Toilet will not flush and water will not enter toilet bowl.	Fuse blown or circuit breaker is tripped.	<ul style="list-style-type: none"> Check toilet fuse or circuit breaker at DC distribution panel. Check for loose/defective wiring between power source and toilet terminal block pins 5 and 8. Check for reverse polarity of incoming power. Check for defective diode D1 at pin 5 of terminal block.
2. Water enters toilet bowl, but toilet will not flush.	Electrical or mechanical failure related to flush valve.	<ul style="list-style-type: none"> Check for loose/defective wiring between flush switch and toilet terminal block pins 2 and 3. Flush switch may be defective. Replace if necessary. Check for loose flush ball motor wires at terminal block pins 2 and 8. Flush ball motor may be defective. Replace if necessary. Flush motor drive arm failure. See p. 12 for replacement instructions. Drive linkage failure. See p. 12 for replacement instructions.

Symptom	Possible Cause	Service Instruction
3. Water will not enter toilet bowl, but toilet flushes.	Blocked water supply or electrical failure.	<ul style="list-style-type: none"> Blockage in water line to toilet. Remove line and clear. Filter screen at water valve inlet is clogged with debris. Remove water line and clear debris. Loose or defective wiring between water valve and terminal block pins 1 and 8. Defective water valve. Replace with new water valve.
4. Water will not enter toilet bowl when flush handle or wall switch is in "Add Water" position.	Electrical connection failure.	<ul style="list-style-type: none"> Loose or defective wiring between flush switch and terminal block pins 1 and 3. Defective flush switch. Replace with new flush switch.
5. Water will not shut off and overflows toilet bowl.	Water valve-related failure.	<ul style="list-style-type: none"> Debris in water valve. Defective water valve. Replace with new water valve.
6. Flush ball constantly cycles between open and closed position.	Component adjustment required or defective component.	<ul style="list-style-type: none"> Cam switch needs adjustment. See adjustment procedure for flush ball over-travel on p. 11. Cam switch is defective. Replace. Drive linkage defective. See replacement instructions, p. 12. Shorted wiring between flush switch and terminal block pins 2 and 3. Defective flush switch. Replace.
7. Flush ball opens slowly and will not open when manual flush lever is pressed.	Component adjustment required or defective component.	<ul style="list-style-type: none"> Flush spring is defective. Replace. Excessive drag between flush ball and flush ball seal. Lubricate flush ball and seal with silicone spray.
8. Flush switch must be held in "Flush" position to close flush ball.	Defective electrical component.	<ul style="list-style-type: none"> Loose or defective wiring between cam switch and terminal block pins 2, 3 and 6. Cam switch is defective. Replace.
9. Flush ball will not close completely.	Component adjustment required or defective component.	<ul style="list-style-type: none"> Cam switch needs adjustment. See adjustment procedure for flush ball over-travel or under-travel, p. 11. Cam switch is defective. Replace. Rotor shaft cam is loose or defective. If defective, see replacement instructions, p. 12. Drive linkage is worn. See replacement instructions, p. 12.
 Caution - Electrical system Turn off electrical power before servicing.	 Caution - Motor starts automatically Turn off electrical power before servicing.	

Symptom	Possible Cause	Service Instruction
10. Flush ball will not close completely.	Component adjustment required or defective component.	<ul style="list-style-type: none"> • Rotor shaft cam is loose or defective. If defective, see replacement instructions, p. 12.
11. Squeaky noise occurs when flush ball is opening.	Lubrication of component(s) is required.	<ul style="list-style-type: none"> • Drive arm/drive linkage joint needs lubricated with silicone grease. • Flush ball and seal needs lubricated with silicone spray.
12. Water will not stay in bowl (leaks down through flush ball seal).	Incomplete seal between flush ball and rubber seal.	<ul style="list-style-type: none"> • Cam switch needs adjustment (see adjustment procedure for flush ball over-travel, p. 11). • Mounting bolts that hold base assembly to ceramic toilet need tightened. Caution: Excessive tightening of bolts can damage toilet. • Flush ball seal is worn and needs replaced. See instructions, p. 11. • Flush ball is worn and needs replaced. See instructions, p. 12.
		
13. Toilet flushes in both "Add Water" and "Flush" switch positions.	Defective electrical component.	<ul style="list-style-type: none"> • Diode D2 on terminal block pins 1 and 2 is defective. Replace with new diode.
		
14. Water will not enter toilet bowl during "Flush" cycle.	Defective electrical component.	<ul style="list-style-type: none"> • Diode D2 on terminal block pins 1 and 2 is defective. Replace with new diode.
		
15. Water is leaking from toilet onto floor.	Loose connection or defective component.	<ul style="list-style-type: none"> • Loose water line connection. Tighten connection. • Loose or defective vacuum breaker. Replace if defective. • Defective water valve. Replace with new water valve. • Ball seal is defective and needs replaced. See instructions, p. 11. • Mounting bolts that hold base assembly to ceramic toilet need tightened to 20-25 in.-lbs. of torque. Caution: Excessive tightening of bolts can damage toilet.



6.6 Servicing toilet base components

ALIGNING CAM SWITCH/FLUSH BALL

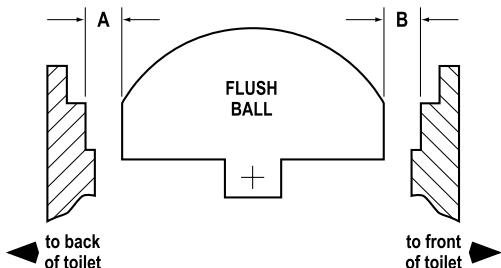
The flush ball should be properly positioned so that the "A" and "B" distances are equal (see illustration at right). If the flush ball becomes misaligned (resulting in water leaking from bowl or other flushing problems), follow instructions below to resolve problem.

REMOVING TOILET FROM FLOOR

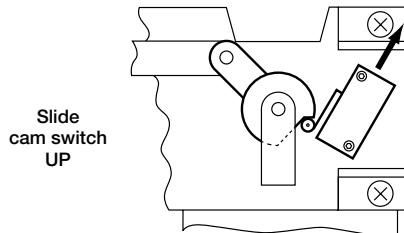
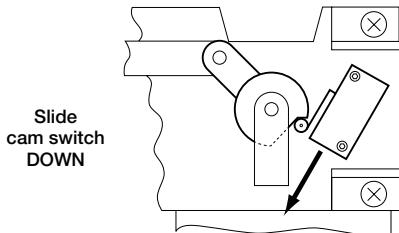
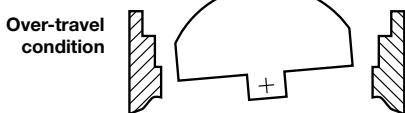
1. Turn off water and electrical power to toilet.
2. Disconnect water inlet hose from toilet.
3. Remove toilet from floor and turn it upside down. **MAKE SURE POWER WIRES REMAIN SECURE.**

TO CORRECT PROBLEMS 6a, 9a and 12a:

4. Loosen cam switch mounting screws with 3/32-inch hex tool and 1/4-inch box-end wrench. Slide cam switch up or down (see illustrations below) depending on flush ball position.



5. Tighten cam switch mounting screws, apply electrical power and check adjustment. Repeat as necessary.
6. After cam switch and flush ball are properly positioned, connect water line and reinstall toilet.



REPLACING THE FLUSH BALL SEAL

1. Turn off water and electrical power to toilet.
2. Remove toilet from floor and turn it upside down. **MAKE SURE POWER WIRES AND WATER LINE REMAIN SECURE.**
3. Remove three nuts and flat washers securing base assembly to toilet bowl using a 1/4-inch drive ratchet wrench, 7/16-inch deep-well socket and extension.
4. Pull vacuum breaker out of the sealing grommet located in rear of toilet bowl.
5. Lift base assembly from toilet.
6. Replace old seals with a complete seal kit.
7. Reconnect base assembly to toilet with new mounting bolts (L-shaped) included with seal kit. Tighten nuts to 20-25 in.-lbs. torque.
8. Reassemble and reinstall toilet.

REPLACING THE FLUSH BALL

1. Turn off water and electrical power to toilet.
2. Open the flush ball with the manual flush lever.
3. Remove toilet from floor and turn it upside down.
MAKE SURE POWER WIRES AND WATER LINE
REMAIN SECURE.
4. Disconnect the water line, input power wires (pins 5 and 8), and flush switch wires (pins 1, 2, 3).
5. Pull the vacuum breaker out of the sealing grommet that's located in rear of toilet bowl.
6. Remove the three nuts and flat washers securing the base assembly to the ceramic toilet bowl using a 1/4-inch drive ratchet wrench, 7/16-inch deep-well socket and extension.
7. Lift the base assembly from the toilet.
8. Remove the bowl seal, flush ball seal, and retainer plate to expose the flush ball.
9. Disconnect the drive linkage from the manual flush lever using a phillips-head screwdriver.
Remove one end of the flush spring.
10. Rotate the flush ball to expose the flush ball screw head. Remove the screw, rotate the ball to the closed position, and remove the flush ball from the rotor shaft. Lift the flush ball out of the base.
11. Remember to keep the rotor shaft in the closed position when installing the new flush valve.
12. The cam switch will require readjustment after flush ball installation. See "Adjusting Cam Switch" on page 11.
13. Remember to tighten new mounting bolts to 20-25 in.-lbs. of torque.

REPLACING THE ROTOR SHAFT OR ROTOR SHAFT CAM

1. Follow disassembly steps under "Replacing the Flush Ball."
2. Loosen the set screw in the rotor shaft cam using a 1/8-inch hex tool.
3. Pull or pry the rotor shaft out from the inside of the base.
4. Align the flat section on the rotor shaft with the flat section in the cam during reassembly.
5. Reverse the disassembly procedure.

REPLACING THE DRIVE LINKAGE

1. Follow disassembly steps under "Replacing the Rotor Shaft or Rotor Shaft Cam."
2. Remove the linkage pin clip and pin.
3. Insert the new linkage.
4. Reverse the disassembly procedure.

REPLACING THE MOTOR DRIVE ARM

1. Follow disassembly steps 1-3 under "Replacing the Flush Ball."
2. Remove one end of flush spring.
3. Remove one end of manual flush lever spring and push manual lever until drive arm is exposed.
4. Replace drive arm using a 3/32-inch hex tool.
5. Reverse the disassembly procedure.

7 **Warranty and product liability**

North America and Rest of the World:

Manufacturer's Two-Year and Ten-Year Limited Warranty

Dometic Corporation warrants, to the original purchaser only, that this Dometic® gravity discharge toilet, if used for personal, family or household-like purposes, is free from defects in material and workmanship for a period of two (2) years from the date of purchase.

Dometic also warrants, to the original purchaser only, that the vitreous china toilet bowl will not scratch or craze for a period of ten (10) years if used for personal, family or household-like purposes.

If this Dometic product is placed in commercial or business use, it will be warranted, to the original purchaser only, to be free of defects in material and workmanship for a period of ninety (90) days from the date of purchase.

Dometic reserves the right to replace or repair any part of this product that proves, upon inspection by Dometic, to be defective in material or workmanship. All labor and transportation costs or charges incidental to warranty service are to be borne by the purchaser-user.

EXCLUSIONS

IN NO EVENT SHALL Dometic BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, FOR DAMAGES RESULTING FROM IMPROPER INSTALLATION, OR FOR DAMAGES CAUSED BY NEGLECT, ABUSE, ALTERATION, OR USE OF UNAUTHORIZED COMPONENTS. THIS INCLUDES FAILURES WHICH MAY RESULT FROM NOT FOLLOWING THE WINTERIZATION OR CLEANING PROCEDURES AS DESCRIBED IN THIS MANUAL. ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, ARE LIMITED TO A PERIOD OF ONE (1) YEAR FROM DATE OF PURCHASE.

IMPLIED WARRANTIES

No person is authorized to change, add to, or create any warranty or obligation other than that set forth herein.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one (1) year from the date of purchase for products used for personal, family or household-like purposes, and ninety (90) days from the date of purchase for products placed in commercial or business use.

OTHER RIGHTS

Some states do not allow limitations on the duration of an implied warranty, and some states do not allow exclusions or limitations regarding incidental or consequential damages; so, the above limitations may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

To obtain warranty service, first contact your local dealer from whom you purchased this product, or go to <http://www.dometic.com> for a dealer near you.

Europe:**Warranty and Customer Service**

Warranty arrangements are in accordance with EC Directive 44/1999/CE and the normal conditions applicable for the country concerned. For warranty or other service, please contact our Dometic Customer Service department. Any damage due to improper use is not covered by the warranty.

The warranty does not cover any modifications to the product or the use of non-original Dometic parts; the warranty does not apply if the installation and operating instructions are not adhered to and no liability shall be entertained.

Product Liability

Product liability of Dometic Group and its subsidiary companies does not include damages which may arise from: faulty operation; improper alterations or intervention in the equipment; adverse effects from the environment which may impact the equipment itself or the direct vicinity of the equipment or persons in the area.

To obtain warranty service, first contact your local dealer from whom you purchased this product or go to <http://www.dometic.com> for a dealer near you.

8 Customer service

There is a strong, worldwide network to assist in servicing and maintaining your sanitation system. For the Authorized Service Center near you, please call from 8:00 a.m. to 5:00 p.m. (ET) Monday through Friday.

You may also contact or have your local dealer contact the Parts Distributor nearest you for quick response to your replacement parts needs. They carry a complete inventory for the Dometic product line.

Telephone:	1 800-321-9886 330-496-3211	U.S.A. and Canada International
Fax:	330-496-3097 330-496-3220	U.S.A. and Canada International
Web site:	http://www.Dometic.com	

Dometic Group is a customer-driven, world-leading provider of leisure products for the RV, automotive, truck and marine markets. We supply the industry and aftermarket with a complete range of air conditioners, refrigerators, awnings, cookers, sanitation systems, lighting, mobile power equipment, comfort and safety solutions, windows, doors and other equipment that make life more comfortable away from home.

Dometic Group supplies a wide range of workshop equipment for service and maintenance of built-in air conditioners. Dometic Group also provides specially designed refrigerators for hotel rooms, offices, wine storage and transport and storage of medical products.

Our products are sold in almost 100 countries and are produced mainly in wholly-owned production facilities around the world.